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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/539,529	06/17/2005	Gerhard Heitze	HM-645PCT	2901
40570	7590	08/06/2007		
FRIEDRICH KUEFFNER 317 MADISON AVENUE, SUITE 910 NEW YORK, NY 10017			EXAMINER ALIE, GHASSEM	
			ART UNIT 3724	PAPER NUMBER
			MAIL DATE 08/06/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/539,529

Applicant(s)

HEITZE ET AL.

Examiner

Ghassem Alie

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on perliminary amendment filed on 06/17/05.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06/17/05 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 06/17/05
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the drive mechanisms (11) in claim 1; a partial plate in claim 2; partial plates in claim 5; and an electric gear motor, a slide with rollers, and rack and pinion set forth in claim 9 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: "7" and "8" in Figs. 1 and 7.
3. The drawings are objected to because some reference numbers "30" and "29" are located within the lines in the figures. Therefore, it is difficult to locate those reference numbers. It is suggested that those reference numbers to be moved out to the margin around the figures.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted

after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

5. The abstract of the disclosure is objected to because it contains more than 150 words and legal phraseology often used in patent claims such as "comprising" and "said."

Correction is required. See MPEP § 608.01(b).

In addition, the abstract of the disclosure does not commence on a separate sheet in accordance with 37 CFR 1.52(b)(4). A new abstract of the disclosure is required and must be presented on a separate sheet, apart from any other text.

Specification

6. A substitute specification in proper idiomatic English and in compliance with 37 CFR 1.52(a) and (b) is required. The substitute specification filed must be accompanied by a

statement that it contains no new matter. The specification is a translation of another language to English.

In addition, the invention has not been clearly described in detail. For example, each figure in the drawings has been briefly described in the specification. However, The specification has not described the invention with the help of the drawings. The specification briefly mentions the reference numbers assigned to the parts of the invention without at least a brief explanation as to what is the function of the parts and how they are related. In fact, some of the reference numbers, such as drive shaft 19, merely have been listed under the "List of reference Numbers." In addition, the specification does not at least briefly describe how the shear apparatus is operated. Therefore, it is almost impossible to read the detail description of the drawings and understand the essential parts of the instant invention. It is not clear how the parts are assembled and relate to one another? It is also not clear how does the instant invention work?

7. The disclosure is objected to because of the following informalities: the specification does not have section headings. It should be noted that each section of the specification should be provided with a proper section heading. For example, the section of the specification that describes the background of the invention should have "BACKGROUND OF THE INVENTION" as a section heading. See arrangement and content of the specification in MPEP 601 (I). Appropriate correction is required.

Claim Objections

8. Claims 1-2 and 7 are objected to because of the following informalities: in claim 1, lines 1-2; "Shear for cutting especially heavy steel plate to length with an upper blade (3)"

should read -- Shear for cutting heavy steel plate to length comprising an upper blade (3)--.

In claim 1, lines 6-7; "connected by an articulate guide element (5) with a shear frame column" should be --connected by an articulate guide element (5) to a shear frame column--.

In claim 2, "the upper blade (3) (Figure 4, Figure 4)." Should be --the upper blade (3).--. In claim 7, "a roller table roller" should be --a roller table--. It is also suggested that in the claims, "by means of ..." to be --by ...--. For example, in claim 1, --"by means of an eccentric blade" should be --by an eccentric blade--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

In addition, it appears that column 6 is both "a shear frame column (6)" and a lateral column. Therefore, it is not clear whether column (6) is a lateral column or a shear column. See claim 1, lines 7 and 11. It should also be noted that claim 8 refers to columns (6, 6') as shear columns. However, claim 1 refers to columns (6, 6') as "lateral columns." In claim 1, lines 7-9; "a device for the timed advance of predeterminable lengths of the steel plate, especially in the form of at least one driver, is assigned to the shear" is confusing. It is not clear what exactly the feeding device for the steel plate encompasses. In claim 1, lines

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18-20; "and that the lower blade table (9) is assigned a lower gearbox (15), which has a central bearings (16) in addition to a bearings (10, 10') of the lower driver rollers (12, 12')" is confusing. It is not clear what device includes a central bearing (16).

Furthermore, "the shear frame (2)", "the eccentric drivers (8, 8')", and "the lower drive rollers (12, 12')", lack antecedent basis. See respectively lines 5, 13, and 16 in claim 1. In claim 3, "the drive contact roll (29)" and "the roll bearing" lack antecedent basis. In claim 4, "the run-in drive (13)" lacks antecedent basis. In claim 5, "the rear driver" and "the partial plates" lack antecedent basis. In claim 6, "the contact roll (13)", "the run-in driver" and "the lower driving roll" lack antecedent basis. In claim 7, "the rear driver" lacks antecedent basis. In claim 8, "the bottom faceplate (24)" and "the cutting forces" lack antecedent basis. In claim 9, "specific partial plate" lacks antecedent basis. In addition, it is not clear what is "the specific partial plate."

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 1-9, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Rohde et al. (3,958,480), hereinafter Rohde, in view of Kumade (4,054,076). Regarding claim 1, Rohde teaches a shear 5 for cutting heavy steel to length including an upper blade 16 which carries out a rolling cutting movement by drive means 11,

12 and it is held in a blade holder 15. Rohde also teaches a lower blade 10 which is mounted in a stationary way in the shear frame. Rohde also teaches that the upper blade holder 15 is movably connected by an articulate guide element with a shear column 8. It should be noted that the articulate member, as a roller, connects the upper blade holder 15 to shear column 8. Rohde also teaches a device 4 for the timed advance of predeterminable lengths of the steel plate, especially in the form of at least one driver 18. Rohde also teaches that the shear is arranged between two lateral columns 8 of a shear frame with a closed construction with one upper cross-frame and one lower cross-frame. See Figs. 4-5 in Rohde. Rohde also teaches that the drive 11, 12 and the upper blade 16 are installed in the upper region of the shear frame and in the lower region of the shear frame bearings 32 and drive mechanisms 38, 40 of the lower drive rollers 18, 16, 28 are installed. Rohde also teaches that the lower blade table 9 is rigidly mounted between the columns 8. Rohde also teaches that a lower gearbox that is naturally connected to the motors 38, 40 for driving the shafts of the drive rollers 18, 26, 28. Rohde also teaches a central bearing 22 in addition to the bearings 32 of the lower driver rolls 26, 28. It should be noted that the lower drive rollers 26, 28 have two bearings 32. See Figs. 1-5 and col. 5, lines 2-61 in Rohde.

Rohde does not explicitly teach that the drive of the upper blade is an eccentric drive. However, the use of eccentric drive for driving an upper shear blade, and an articulate member connecting the shear blade holder to a column in the shear apparatus is well known in the art such as taught by Kumade. Kumade teaches an eccentric drive 9, 10 for an upper blade 18 of a shear apparatus. Kumade also teaches an articulated guide element 22 for connecting the blade holder 17 of the upper blade 18 to a shear column 2. See Figs. 3-4 and

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col. 1, lines 39-54 in Kumade. It would have been obvious to a person of ordinary skill in the art to provide Rohde's shear with an alternative drive mechanism having an eccentric drive and an articulated guide element that connects the blade holder to the shear column, as taught by Kumade, in order to prevent the upper blade slipping relative to the sheet plate to be cut. In addition, the eccentric drive mechanism in Kumade and the drive mechanism in Rohde are art-recognized equivalents that function the same, and it would have been obvious to a person of ordinary skill in the art to substitute one for another.

Regarding claim 2, Rohde teaches everything noted above including one drive with an upper drive contact roll 17 is present before the upper blade 16 and one drive with an upper driver contact roll 25, 27 is present after the upper blade 16. See Fig. 4 in Rohde.

Regarding claims 3-9, as best understood, Rohde teaches everything noted above including a driver contact roll 17, run-in driver 18, rear driver 26, 28, lever system and hydraulic cylinder 24, 34, 36, a driven lower driving roll 26, 28, a support bracket, and a bottom faceplate, a slide 24, 34, 36.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Le Guelennec (4,204,450), Soderberg (2,130,818), Danly (2,618,840), Huston (1,617,486), Wengenroth et al. (4,635,512), Kopf et al. (3,777,608), Muller (3,886,828), and Ishii et al. (4,079,649) teach a shear including a frame, an upper blade, and a lower blade.

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14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ghassem Alie whose telephone number is (571) 272-4501.

The examiner can normally be reached on Mon-Fri 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on (571) 272-4502. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, SEE <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ghassem Alie
Patent Examiner
Art Unit 3724



GA/ga

August 1, 2007